

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (currently amended): An abnormal pattern detection processing method comprising:  
detecting an abnormal pattern in an image, based on inputted image information;  
processing the detected abnormal pattern;  
displaying the detected abnormal pattern;  
correcting the processed and displayed abnormal pattern, for each of a plurality of items  
of the inputted image information;  
relating a result of the processed and displayed abnormal pattern to a result of the  
corrected abnormal pattern, for each of the plurality of items of the inputted image information,  
for each patient; and  
storing the plurality of processed abnormal pattern results and the plurality of corrected  
abnormal pattern results for each patient, wherein  
said correcting step includes canceling a pattern which is not abnormal within the  
processed and displayed abnormal pattern, and adding an abnormal pattern which was not  
detected by the abnormal pattern detection; and  
said relating step includes determining a cancelled abnormal pattern as an FP, a non-  
cancelled abnormal pattern as a TP, and an added abnormal pattern as an FN.

2. (previously presented): An abnormal pattern detection processing method according to claim 1, wherein quantitative evaluation of the detection processing is performed, on the basis of said stored plurality of processed abnormal pattern results and said stored plurality of corrected abnormal pattern results.

3. (previously presented): An abnormal pattern detection processing method comprising:

- detecting an abnormal pattern in an image, based on inputted image information;
- processing the detected abnormal pattern;
- performing a pattern reading assessment using the image information;
- performing a pathologic assessment of the abnormal pattern;
- relating a result of the detected abnormal pattern processing and a result of the pattern reading assessment to a result of the pathologic assessment, for each of a plurality of items of the inputted image information, for each patient; and
- storing the plurality of processed detected abnormal pattern results, the plurality of pattern reading assessment results and the plurality of pathologic assessment results for each patient.

4. (previously presented): An abnormal pattern detection processing method according to claim 3, wherein quantitative evaluation of the pattern reading assessment is performed, on the basis of said stored plurality of pattern reading assessment results and said stored plurality of pathologic assessment results.

5. (previously presented): An abnormal pattern detection processing system which detects and processes an abnormal pattern in an image represented by image information on the basis of inputted image information, comprising:

a means relating a result of said detection processing to a corrected detection processing result, for each of a plurality of items of said image information, for each patient, and storing the plurality of detection processing results and the plurality of corrected detection processing results for each patient; and

evaluator means for performing quantitative evaluation of the detection processing on the basis of said plurality of results of detection processing and corrected detection processing results stored in said relating and storing means.

6. (canceled).

7. (previously presented): An abnormal pattern detection processing system, which detects and processes an abnormal pattern in an image represented by image information on the basis of inputted image information, comprising:

a means relating a result of said detection processing and a result of a pattern reading assessment using said image information to a result of pathologic assessment concerning said abnormal pattern, for each of a plurality of items of said image information, for each patient, and storing the plurality of detection processing results, the plurality of pattern reading assessment results and the plurality of pathologic assessment results for each patient; and

evaluator means for performing a quantitative evaluation of the pattern reading assessment on the basis of said plurality of pattern reading assessment results and the plurality of pathologic assessment results stored in said relating and storing means.

8. (canceled).

9. (previously presented): The method of claim 2, wherein the corrected abnormal pattern results comprise a determination of whether the processed abnormal pattern corresponds to at least one of a true positive, false positive, true negative and false negative.

10. (previously presented): The method of claim 9, wherein the quantitative evaluation comprises a ratio of a number of true results relative to a number of true and false results.

11. (previously presented): The method of claim 10, wherein a sensitivity of the quantitative evaluation is determined by the ratio of true positives to a sum of true positives and false negatives.

12. (previously presented): The method of claim 10, wherein a specificity of the quantitative evaluation is determined by the ratio of true negatives to a sum of true negatives and false positives.

13. (previously presented): The method of claim 10, wherein a positive predictive value of the quantitative evaluation is determined by the ratio of true positives to a sum of true positives and false positives.

14. (currently amended): An abnormal pattern detection processing method according to claim 1, wherein the processing automatically determines whether the abnormal pattern exists or not, based on a result of the detection of said abnormal pattern in said image.

15. (currently amended): An abnormal pattern detection processing method according to claim 3, wherein the processing automatically determines whether the abnormal pattern exists or not, based on a result of the detection of said abnormal pattern in said image.

16. (currently amended): An abnormal pattern detection processing system according to claim 5, wherein the processing automatically determines whether the abnormal pattern exists or not, based on a result of the detection of said abnormal pattern in said image.

17. (currently amended): An abnormal pattern detection processing system according to claim 7, wherein the processing automatically determines whether the abnormal pattern exists or not, based on a result of the detection of said abnormal pattern in said image.